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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,455	10/20/2000	Satoru Fujita	043034/0159	6205
22428	7590	12/22/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			NGUYEN, NGA B	
			ART UNIT	PAPER NUMBER
			3628	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/692,455	FUJITA, SATORU	
	Examiner	Art Unit	
	Nga B. Nguyen	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is the answer to the communication filed on August 30, 2004, which paper has been placed of record in the file.
2. Claim 30 has been added. Claims 1-30 are pending in this application.

Response to Arguments/Amendment

3. Applicant's arguments with respect to claims 13-22, 28 and 29 regarding to 101 rejection have been considered and are persuasive. Applicant amended the claims to include the use of a computer system to perform the method, thus overcome the 101 rejection. Therefore, examiner withdraws the 101 rejection regarding to claims 13-22, 28 and 29.
4. Applicant's arguments with respect to claims 1-30 regarding to prior arts rejection have been considered but are not persuasive.

In the arguments regarding to independent claims 1, 7, 8, 13, 19, 20, 25, 26, 27, 28, and 29, applicant stated that Eder fails to teach ***a logical formula representing a relationship between two or more items, evaluation of a relationship between items, evaluation of a combinational profit of items in a relationship formula and maximizing profit of items represented by a logical formula.*** Examiner respectfully disagrees.

Eder discloses a computer based inventory control method and system for feasible profit maximizing sets of requisitions. A profit maximized requisition set is created that utilized vendor and unit of measure substitution under a variety of discount

schedules to the extending completed by the system to determine the profit maximizing requisition set utilizes multi-objective, mix-integer, liner programming technique. The present invention defines a logical formula representing a relationship between items as a logical formula representing a logical OR of two items and a logical formula representing a logical AND of two items. The same in Eder, see column 62, lines 15-20, a table represents a relationship between a plurality of items and the unit price, e.g. items 0-499 have unit price of \$79, items 500-999 have unit price of \$78.50, thus the relationship between items in the range of 0-499 is a logical AND because the system determines that purchasing 1 AND 2 AND ...499 items will have the same unit price for each item, the relationship between items 0-499 and 500-999 is a logical OR because the system determines that purchasing, e.g. 499 items OR 500 items, the unit price of each item if purchasing 499 items is different than purchasing 500 items. Also, column 62, lines 20-60, the relationship between 962 items and 1,000 items is evaluated, the total cost of order will decrease \$31,103 if the quantity of order changes from 962 items to 1,000 items, thus in order to purchase 962 items, the system modifies to 1,000 items (962 OR 1,000) based on the total cost of order, thus 1, 000 items (equal to 962 items AND 38 items) purchased will decrease the total cost of orders. Therefore, Eder does teach **a logical formula representing a relationship between two or more items and evaluation of a relationship between items.**

Moreover, see Eder, column 67, begin at line 12, "the processing completed for items in category 3 determined **if changes to the unit of measure and the associated order quantities** used for the requisitions will produce an increase in forecast time

period profit"; "The overall result from processing items in the category will be to change the unit of measure and the associated order quantity used for requisitions from the preliminary specification ***if making the change improves profitability***"; "***The profit maximization calculation begins*** when processing advances to blocks 613 or to a block 638. The software in these blocks prepares the equations and constraints required for ***determining the most profitable mix of units of measure*** and quantity for purchasing the item quantity discount item"; column 68, begin at line 5, "***The maximized solution defines the most profitable mix of quantities for the different units of measure*** for the item quantity discount item being analyzed ...". Thus, in Eder, the system evaluates the combinational of items in order to maximize the profit. Also, see column 72, begin at line 12, "the constraint on ***volume for the as-ordered item is modified to reflect the volume available*** for as-ordered purchased after taking in to account the previously calculated volume for the item that will be purchase on a commitment basis", begin at line 45, an example of the adjustment made to the post business volume discount period requisition is shows as: instead of 4 requisitions of 12 cartons for as-ordered purchased, the system modifies to increase to 6 requisitions of 12 cartons in order to maximize the profit, thus there is an OR logical relationship between 4 and 6 requisitions, because the system determines whether purchasing 4 OR 6 requisitions will maximize the profit, and there is an AND logical relationship between 4 and 2 requisitions (becomes 6 requisitions), because the system determines purchasing 4 AND 2 will maximize the profit. Therefore, Eder does teach ***evaluation of***

a combinational profit of items in a relationship formula and maximizing profit of items represented by a logical formula.

Claims 2-6, 9-12, 14-18, and 21-24 and new claim 30 depend from one of the rejected claims, therefore, are rejected for at least that reason.

In conclusion, for the reasons set forth above, examiner decides to maintain the rejection using Eder as stated in the previous office action (also see details below) and make this office action FINAL.

5. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eder, U.S. Patent No. 5,615,109.

Regarding to claim 1, Eder discloses a system for deciding a purchase item for which a purchase is made, comprising:

a data memory for storing a logical formula representing a relationship among a plurality of purchase items, a value table containing a value of each of the purchase items, price information of each of the purchase items in at least one market, a total purchasing fund, and a purchasing strategy (column 31, lines 23-55, the server, personal computer 20 having a hard drive 84 for storing database table; column 39, lines 25-30 and column 40, lines 50-67; Item Master table).

a profit computation section for computing a profit obtainable when at least one purchase item selected from the plurality of purchase items is purchased, based on the value and the price information of the at least one purchase item (column 64, lines 15-67); and

a strategy computation section for determining at least one purchase item for which a purchase should be made and a gross profit obtainable from the determined at

least one purchase item, wherein the strategy computation section selects a candidate combination including **one of**: 1) no purchase items, 2) one purchase item, and 3) two or more purchase items from the plurality of purchase items based on the formula, and price information of two or more of the plurality of purchased items, and instructs the profit computation section to computer a profit obtainable from the selected candidate combination (columns 65-72).

Eder discloses the system for deciding a purchase item instead of for a bidding item. However, bidding is a special type of purchase in which a plurality of purchasers competes for purchasing an item, the purchaser who places a highest price will get the item, such bidding for the item is well known in the art. Therefore, it would have been obvious at the time of the invention to modify Eder's to replace a purchase item by a bidding item for the purpose of maximizing the possible profit when bidding for items.

Regarding to claims 2-5, Eder discloses wherein the logical formula represents any combination of a logical OR, a logical exclusive-OR, and a logical AND of the plurality of purchase items, wherein the logical OR represents a desire to maximize the possible profit within the total purchasing fund to obtain a subset of bid items form the plurality purchase items; the logical exclusive-OR represents a desire to determine a single purchase item of the plurality of purchase item so as to maximize the possible profit within the total purchasing fund, and the logical AND represents that a combinatorial value will be obtained only when a plurality of purchase items related to the logical AND are all purchased (column 84, TABLE 83).

Regarding to claim 6, Eder does not disclose wherein the strategy computation section further establishes a purchasing strategy taking into consideration a possible rise of a purchasing price of each of the purchase items due to participation of a third party to the purchasing in the future. However, such feature is well known in the art in bidding for an item. Therefore, it would have been obvious at the time of the invention to modify Eder's to include the feature above for the purpose of considering the rise of the item's price in the purchasing strategy.

Regarding to claim 7, Eder discloses an automated purchasing system comprising:

a price collection device for automatically collecting price information of a purchase item for which a purchase is made in at least on market at regular intervals (column 45, lines 35-50; obtaining the historical data for the item from the sales history table to determine the average period price for the item);

a purchase decision system as described in claim 1 above.

Eder discloses the system for deciding a purchase item instead of for a bidding item. See the same motivation in claim 1 above.

Eder does not disclose a bidding device performing a bid for the determined at least one bid item. However, Eder discloses a client personal computer 10 connected to the network (column 30, lines 25-30). Moreover, the user using a personal computer connected to the network such as the Internet for bidding an item is well known in the art. Therefore, it would have been obvious at the time of the invention to modify Eder's to allow the client uses the personal computer 10 as a bidding device performing a bid

for the purpose of obtaining a competition between a plurality of purchasers for purchase an item in order to get highest possible price for an item.

Regarding to claim 8, Eder discloses a purchase supporting system comprising:

a market observation price device for automatically collecting price information of a purchase item for which a purchase is made in at least on market at regular intervals (columns 45-48; the software completes forecasts of item demand for the base period using the specified historical information together with the 32 different algorithm);

a purchase decision system as described in claim 1 above.

a purchase recommendation device for representing determined at least one purchase item as recommendable information reflecting price variations in the market (columns 83-84).

Eder discloses the system for deciding a purchase item instead of for a bidding item. See the same motivation in claim 1 above.

Regarding to claims 9-10, Eder discloses wherein the logical formula, the value table, and the total purchasing fund are allowed to be updated with a lapse of time (column 38, lines 35-60).

Regarding to claims 11-12, Eder discloses a mobile agent, wherein, after the logical formula, the value table, the total pursing fund and the purchasing strategy have been input, the automated purchasing system is transferred from a user's computer to a continuously opening computer to allow periodical market observation (column 30, lines 25-37, the server personal computer 20).

Claims 13-24 contain similar limitations found in claims 1-12 above, therefore are rejected by the same rationale.

Claims 25-27 are written in computer software that parallel the limitations found in claims 13, 19, 20 above, therefore are rejected by the same rationale.

Regarding to claim 28, Eder discloses in computer, a method for deciding a purchasing item for which a bid is made, comprising the steps of:

storing in a memory device a logical formula representing a logical OR of two purchase item X and Y, a value table containing values x_m and y_m of respective ones of the purchase items X and Y, present prices x and y of respective ones of the purchase items X and Y, a total purchasing fund T , and a constant p_1 determined by a purchasing strategy (column 31, lines 23-55, the server, personal computer 20 having a hard drive 84 for storing database table; column 39, lines 25-30 and column 40, lines 50-67; Item Master table);

determining by the computer whether $y < y_m$, Condition1 is satisfied; $y - (T + y_m - x_m)/2$, Condition2 is satisfied; $y - y_m < x - x_m$, Condition3 is satisfied; $x + y > T$, condition5 satisfied; $y > p_1 * x_m + y_m$, Condition6 satisfied; determining by the computer that the purchase item Y should not be purchase in one of case where the Condition1 is no satisfied, the Condition1 is satisfied, ect...; determining by the computer that the purchase item Y should by purchased in one of cases where the Conditions1 and 2 are satisfied, where the Condition 1 is satisfied, etc... (see columns 65-72).

Eder discloses the system for deciding a purchase item instead of for a bidding item, and Eder does not disclose determining whether close of bidding for Y is earlier

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than that X. However, bidding is a special type of purchase in which a plurality of purchasers competes for purchasing an item, the purchaser who places a highest price will get the item, such bidding for the item is well known in the art. Moreover, it is well known in the art to determining the closing time of one bidding item. Therefore, it would have been obvious at the time of the invention to modify Eder's to replace a purchase item by a bidding item for the purpose of maximizing the possible profit when bidding for items.

Claim 29 has similar limitations found in claim 28 above, therefore, is rejected by the same rationale.

Regarding to claim 30, Eder discloses wherein the strategy computation section determines the at least one bid item in the candidate combination so as to maximize the possible profit within the total purchasing fund (column 67, lines 12-43).

Conclusion

8. Claims 1-30 are rejected.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Nga B. Nguyen whose telephone number is (703) 306-2901. The examiner can normally be reached on Monday-Thursday from 9:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on (703) 308-0505.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-1113.

10. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

C/o Technology Center 3600

Washington, DC 20231

Or faxed to:

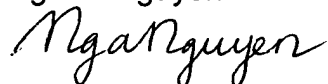
(703) 872-9326 (for formal communication intended for entry),

or

(703) 308-3691 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, Seventh Floor (Receptionist).

Nga B. Nguyen



December 10, 2004